

## Amendment of the Claims

### In the claims:

Please amend the claims as follows (additions are underlined and deletions are struck through):

1-48. (Cancelled).

49. (Previously Presented) A method of producing an edible plant whose edible portions comprise significant concentrations of selenium the method comprising:

growing an edible *Brassicaceae* plant in an environment that contains selenium under conditions that allow the plant to accumulate selenium in its edible portions; and

harvesting the plant after it has accumulated selenium in the edible portions to a concentration higher than that of the selenium in the environment, wherein the concentration of selenium in the edible portions is at least about 2500 mg/kg dry weight, and wherein at least 20% of the accumulated selenium is in the form of Se-methyselenocysteine.

50-56. (Cancelled).

57. (Currently Amended) The method of claim ~~[[51]]~~ 49, 63, 64 or 65, wherein:  
the plant is a *Brassica* plant.

58. (Currently Amended) The method of claim 49, 63, 64 or 65, ~~any one of claims 49 or 51~~, wherein:

the plant is of a species selected from the group consisting of *Brassica juncea*, *Brassica oleracea*, and *Brassica carinata*.

59-62. (Cancelled).

63. (Previously Presented) A method of producing an edible plant whose edible portions comprise significant concentrations of selenium, the method comprising:

growing an edible *Brassicaceae* plant in an environment that contains selenium under conditions that allow the plant to accumulate selenium in the edible portions; and

harvesting the plant after it has accumulated selenium in the edible portions to a concentration higher than that of the selenium in the environment,

wherein the concentration of selenium in the edible portions of the plant is at least about 2000 mg/kg dry weight, and

wherein at least 20% of the accumulated selenium is in the form of Se-methylselenocysteine.

64. (Previously Presented) A method of producing an edible plant whose edible portions comprise significant concentrations of selenium, the method comprising:

growing an edible *Brassicaceae* plant in an environment that contains selenium under conditions that allow the plant to accumulate selenium in the edible portions; and

harvesting the plant after it has accumulated selenium in the edible portions to a concentration higher than that of the selenium in the environment,

wherein the concentration of selenium in the edible portions of the plant is at least about 1500 mg/kg dry weight, and

wherein at least 20% of the accumulated selenium is in the form of Se-methylselenocysteine.

65. (Previously Presented) A method of producing an edible plant whose edible portions comprise significant concentrations of selenium, the method comprising:

growing an edible *Brassicaceae* plant in an environment that contains selenium under conditions that allow the plant to accumulate selenium in the edible portions; and

harvesting the plant after it has accumulated selenium in the edible portions to a concentration higher than that of the selenium in the environment,

wherein the concentration of selenium in the edible portions of the plant is at least about 1000 mg/kg dry weight, and

wherein at least 20% of the accumulated selenium is in the form of Se-methylselenocysteine.